IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):   Jonathan Vance

Assignee: Dell Products L.P.

Title: System and Method for Configuring Information Handling System
Networked Peripherals

Serial No.:	10/798,047	Filing Date:	March 11, 2004
Examiner:	Christopher B. Shin	Group Art Unit:	2181
Docket No.:	DC-06417	Customer No.:	33438

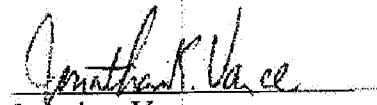Austin, Texas
October 11, 2006

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DECLARATION OF JONATHON VANCE UNDER 37 CFR § 1.131

1.   My name is Jonathon Vance. I am a named inventor of the above-referenced patent application, filed on March 11, 2004, and assigned to Dell Products L.P.

2.   I am informed that the Examiner has rejected all claims of the above-referenced application based on U.S. Patent Application Publication 2005/0149626 by Manchester, filed on March 23, 2004. Although Manchester does not predate the filing of the above-referenced application, Manchester claims priority from a provisional application file on January 7, 2004.

3.   Attached hereto as Exhibit A is a true and correct copy of an invention disclosure form submitted by me to my employer on October 30, 2003. The invention disclosure form was approved for the filing of a patent application after my submission and assigned to outside

counsel for preparation of the application on December 30, 2003. I worked with Dell's outside patent attorney to prepare and file the above-referenced patent application on March 11, 2004.

5.   I declare under penalty of perjury by the laws of the United States that the facts stated in this declaration are true and correct.

Jonathan Vance

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Invention Disclosure Form (Dell Confidential)

DC-06417

Title:

METHOD AND APPARATUS FOR CONFIGURING STATIC IP ADDRESSES ON NETWORK PRINTERS

EXHIBIT "A"

INVENTORS

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Line of Business: Printers Dev 1   Manager: David Cameron

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RELEVANT DATES & DISCLOSURES

Submission Date: 10/30/2003

Conception Date:

Invention first described in: engineering notebook

First offer for sale: N/A

First production use/ship date: N/A

Anticipated offer for sale, production use, or ship date: N/A

Disclosure outside of Dell?   No

TECHNOLOGY

Product Line: Peripherals

Project Code Name(s):   Intrepid, Thunderbolt, Intrepid 45

Relevant Standards:

WITNESSES

Witness 1:   Jaime Dilworth

Witness 2:   Steven Chillscyzn

THE PROBLEM

Currently, when a user wishes to configure a Dell workgroup printer on a network that does not support DHCP, or if the user wishes to configure static IP addresses on those same devices in DHCP networks, the user's options are very limited.

Relative to the former configuration, a utility called "TCP/IP Setup Utility" must be used. This utility requires the user to obtain the canonical or MAC address from the printer. The user then enters this information into the TCP/IP Setup Utility and waits for the printer to be discovered and a connection to it established. Communication with the printer is accomplished by providing a temporary IP address to the printer. This temp IP is generated by incrementing the IP address of the system running the TCP/IP Setup Utility by one. The system then pings this address to determine if the IP address is in use. If it is in use, the IP address is again incremented by one and the process starts over. The more IP addresses the utility must traverse, the longer it taskes to establish communication with the printer. This process must be repeated for each printer to be configured. This is a timely effort.

Relative to the latter configuration, it is important to note that these printers are configured to obtain an IP address from a DHCP server out-of-box. This may not be desirable since DHCP uses IP leasing and the possibility exists that the IP address may change over time with no warning. If the user wishes to configure a static IP address in DHCP environments, there are two choices: The user must connect the printer to the network and allow DHCP to assign an address. The user is then required to access the embedded web server within the printer and change the IP address to the desired value. After that is done, the user must then remember to disable DHCP, BOOTP, and RARP to prevent the address from being reverted to the original address assigned by the DHCP server. The second option requires the use of the printer's Operator's Panel. In this scenario, the user navigates through the Ops Panel to the network submenu. The user must then disable DHCP, BOOTP, and RARP manually. Once that is done the user can manually assign an IP address from the Ops Panel before connecting to the network. Both of these methods are time consuming and unintuitive.

PRIOR SOLUTIONS/EXISTING TECHNOLOGY

Keyword Search:
printer, static, IP, usb, network

PROPOSED SOLUTIONS

The following proposal allows a user to pre-configure network addresses for workgroup printers. The user stores these configurations on a USB storage device. Each printer will have a USB port that allows the configuration to be imported to the printer.

METHOD: A PC based application allows the user to enter the IP address, subnet mask, and gateway information for a specific printer. The application allows the user to enter as many configurations as necessary according to how many printers are to be configured.

APPARATUS 1: A USB storage device is used to store the data collected within the application.

APPARATUS 2: A USB port on the printer will accept the USB storage device. The USB storage device is accessed using the Operator's Panel on the printer. The user navigates to the USB submenu on the Ops Panel. The Ops Panel will list all available configurations and allow the user to select or highlight

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the configuration he wishes to import to the printer. When the configuration is chosen, the printer imports the network address information and also disables DHCP, BOOTP, and RARP. This will prevent the printer from obtaining a new address if installing on a DHCP enabled network. The user may pre-configure as many printers as there are configurations on the USB storage device.

FIGURES

PC Application

Configure Printer #1
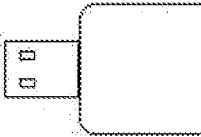
Enter IP Address

Enter Subnet Mask

Enter Gateway

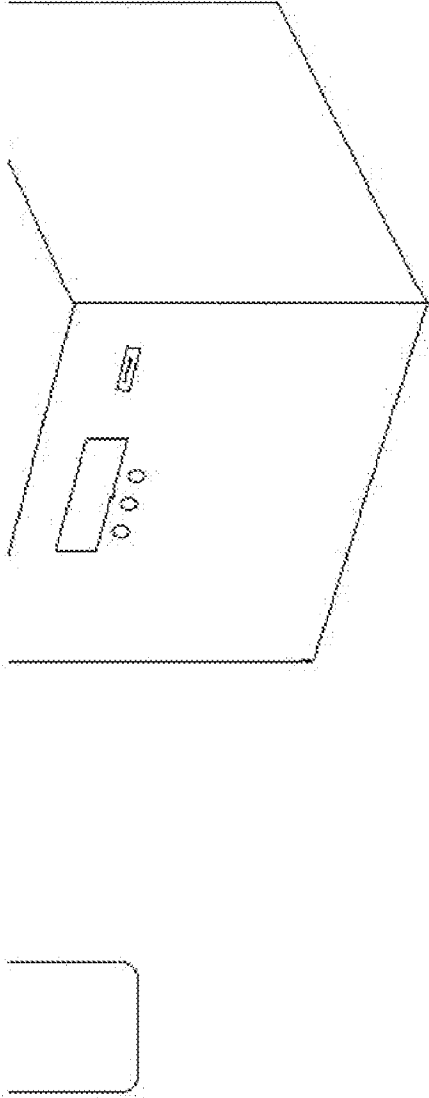Configure Another Printer   Save To USB Device

The application allows the user to configure as many IP addresses as the user wishes by clicking the "Configure Another Printer" button. When complete, the user selects the "Save To USB Device" button. The data will be stored on the USB storage device.

USB Storage Device

Printer with Type A USB Port

Printer Operator Panel

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IMPORT CONFIGURATION

Config 1
Config 2
Config 3
Config 4
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Using the navigation buttons on the printer operator panel the user will navigate to the USB submenu and select the desired configuration. When the configuration is selected DHCP, BOOTP, and RARP will be disabled on the device preventing the possibility of a new IP address being assigned by another server. This process is repeated for all printers to be configured before finally connecting them to the network.

Configure IP Address, Subnet
Mask, and Gateway
Information Using PC

Application

Configure Another Printer?

No → Save to USB Storage Device → Insert USB Storage Device into Port on Printer → Navigate to USB Submenu on Ops Panel → Import Configuration to Printer Firmware

Yes

Yes

Configure Another Printer?

No

Connect Printer to Network